BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Zone, Electrical Division

Name of Work:-Detailed Estime for Providing Control boxes and switches No-09 Vidyaranyapura.

Budget Head :

Ward No. 09 **Estimate No:-** **For Rs** **1000000.00**

Sl No	SR Page & Sl No	Description Of Work	Unit	qty	Rate	Amount
1	33/5.2.2	Supply and erection of .....Mtr RCC Pole including earth work etc,. complete as per the standard technical specification of BESCOM 9Mtr 145Kg WL	Nos	5	8029.00	40145.00
2	22/4.16	Supplying High pressure Sodium Vapour street light luminaire 250Watts suitable for use with high pressure Sodium Vapour lamp with integrated control gear & grey color power coated. The fitting shall be non corrosive pressure die cast aluminum housing with high purity anodized aluminum reflector with EPDM Gaskets suitable for Outer Dia of pole 40mm - 60mm. Cable Entry through a cable gland with toggle clips. IP65 Protection for both optical & Electrical Compartment. Bottom cover may be with Poly carbonate/tempered/ toughened glass. Luminaire efficiency should be >60% & ambient temperature > 35 deg C. High Intensity Discharge Electro Magnetic Ballast with Copper winding of Orthocyclic winding coil. Class H insulated dual coated copper wire. Compliance to IEC 61347-2-9 Safety & IEC 60923 - Performance. Winding Temperature for HID Ballast Tw = 130 deg C & temperature rise ?T = 70 deg C. Luminaire shall be suitable to operate on 230/250 Volts finish including wiring, suitable to operate on 230/250 Volts 50 Hz AC supply finish including wiring, ignitor, condenser. SS Toggles for opening front hingeable glass.	Nos	7	6900.00	48300.00
3	108 /17.1.2	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe	Nos	7	893.00	6251.00
4	50/6.41.1	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.200mmx200mmx98mm	Nos	22	2178.00	47916.00
5	50/6.41.2	260mmx210mmx116mm	Nos	24	2334.00	56016.00

Administrative Sanction for Rs. 10.00 LAKHS
RUPEES TEN LAKHS ONLY
is accorded under P1771 ZONE WORKS
DOW- WORKS
Registered as EE No 04/2019-20 Subject
to conditions contained in sanction memo
No. BBMP/EE(E)/Y2/AS/04/2019-20
Dt 20-07-2019

Executive Engineer

6	46/6.13.A.1	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE 100Amps25kA.	Nos	24	4044.00	97056.00
7	64/7.21.7	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel	Nos	80	20.59	1647.20
8	49/6.39.2	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)50X50X6 mm	Mtrs	50	263.00	13150.00
9	34/5.11	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	Mtrs	2000	30.00	60000.00
10	34/5.9.1	Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM 1.1 KV Pin Insulator	Nos	65	44.00	2860.00
11	34/5.9.	No. 8 Strain Insulator	Nos	40	14.00	560.00
12	33/5.4.	2 Pin 45x45x5mm -510mm	Nos	60	306.00	18360.00
13	BESCOM SR 2018-19 49.02	Supplay and Laying of 1.1KV Class HR (Heat Resistant) PVC Insulated & UnSheathed Aluminium Wires Multistrand Single core Lead wires as per IS694: 2010 PVC Wire - 25 Sqmm Al Wt: 6.7 Kgs, Total Wt: 11.5Kgs for 100Mtrs	Per Mtr	400	32.31	12924.00
14	2/1.1.2	Supplying heavy gauge PVC conduit pipe .....dia .....mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.25mm dia 2mm thick	Per Mtr	125	70.00	8750.00
15	55/7.4.5	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 3.5 core 25 sqmm	Mtrs	1250	165.50	206875.00
16	56/7.4.	3.5 core 50 sqmm	Mtr	70	265.00	18550.00
17	61/7.8.2	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.25 sqmm to 75 sqmm	Mtrs	1320	16.20	21384.00
18	7.9	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)In soil (ordinary)	Mtrs	600	78.00	46800.00
19	62/7.12.1	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.40mm		90	345.00	31050.00

20	62/7.12.2	50mm	Mtr	4	391.00	1564.00
21	7.13.2	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.25Sqmm	Nos	1	362.00	362.00
22	7.13.5	50Sqmm	Nos	2	637.00	1274.00
23	49/6.4.2	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete.16SWG	Sqcms	70000	0.33	23100.00
24	45/6.12.4	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100-125Amps	Nos	2	9915	19830.00
25	17/3.10	Supplying and fixing phylum brand hand plastic sheet 3mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws	Sqcms	15000	0.22	3300.00
26	46/6.16	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.40-63 Amps SP	Nos	10	677.00	6770.00
27	46/6.16.6	40-63Amps TPN	Nos	2	1936.00	3872.00
28	9 32 / 9	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and waqshers etc.. Group A, PWD Elec SR 2006-07.	Nos	2	4200.00	8400.00
29	6/2.6.7	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm	Mtrs	20	132.00	2640.00
30	6/2.6.2	1.5 sqmm	Mtrs	700	15.90	11130.00
31	55/7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	Nos	2	2727.00	5454.00
32	45/6.7.4	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.d) 100 Amps	Nos	6	360.00	2160.00

33	106/16.28.1	Painting of existing street light pole after scrapping the old paint and painted with suitable colour enamel/Silver paint including coping/footing of the pole .Upto 5Mtr street light pole.	Nos	24	500.00	12000.00
34	4.1KP WD2015-16	KSRB 4-1 .1: Providing and laying in position plain cement concrete of cum 5,004.00 mix 1 :2:4 with ope cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @O.B7Bcum and fine aggregates @ 0.459cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications Specification No. KBS 4.1, 4.2	Cumt	1	5004.00	5004.00
35	AR	**Thiristor based single/ Three phase smart street light control and monitoring system** Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	Nos	3	51500.00	154500.00
		Mislenious				45.80
		Grand Total Rs				1000000.00

LIMITED FOR Rs 10-00 LAKHS
RUPEES TEN LAKHS ONLY
P1771 ZONE WORKS POO
WORKS
No. 02/2019-20
conditions contained in
No. BBMP/EE(E)/42AS/02/19-
OL 20-07-2019
BBMP/EE(E)/42/TS/02/2019-20.
Dated 20.07.2019 Rs 10-00 Lakhs
Executive Engineer

CERTIFICATE :-

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.2014-15 , BESCOM SR and Approved Rates.

Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE